

AMENDMENTS TO THE CLAIMS:

Claim 1 has been amended as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claim 1 (currently amended): An active matrix liquid crystal display panel for producing visual images, said display panel comprising a first substrate structure and a second substrate structure, and a liquid crystal layer filling a gap between the first substrate structure and the second substrate structure, wherein:

a said first substrate structure ~~including~~ includes a black matrix defining openings, color filter layers respectively disposed in said openings and a piece of material inserted between said black matrix and said color filter layers and larger in resistivity than said black matrix and said color filter layers;

a said second substrate structure ~~including~~ includes electrodes for selectively generating local lateral electric fields in a plane parallel to the liquid crystal layer in regions associated with said color filter layers; and

a said liquid crystal layer filling a the gap between said first substrate structure and said second substrate structure, ~~and having~~ has pieces of liquid crystal in said regions for changing values of transparency depending upon the local electric fields.

Claim 2 (original): The active matrix liquid crystal display panel as set forth in claim 1, in which said first substrate structure further includes an overcoat layer partially covering said black matrix and said color filter layers and partially serving as said piece of material.

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Claim 3 (original): The active matrix liquid crystal display panel as set forth in claim 2, in which the resistivity of said color filter layers is greater than the resistivity of said black matrix and less than the resistivity of said overcoat layer.

Claim 4 (original): The active matrix liquid crystal display panel as set forth in claim 3, in which said resistivity of said black matrix is fallen within a range between 10^3 ohm-cm to 10^6 ohm-cm, the resistivity of said color filter layers is fallen within a range between 10^8 ohm-cm to 10^{12} ohm-cm, and the resistivity of said overcoat layer is equal to or greater than 10^{14} ohm-cm.

Claim 5 (original): The active matrix liquid crystal display panel as set forth in claim 2, in which moats are formed in the part of said overcoat layer in such a manner as to be filled with said liquid crystal.

Claim 6 (original): The active matrix liquid crystal display panel as set forth in claim 5, in which the resistivity of said color filter layers is greater than the resistivity of said black matrix and less than the resistivity of said overcoat layer, and the resistivity of said liquid crystal is greater than the resistivity of said overcoat layer.

Claim 7 (original): The active matrix liquid crystal display panel as set forth in claim 1, in which said first substrate structure further includes an overcoat layer covering said black matrix, said color filter layers and said piece of material, and said piece of material is different from said overcoat layer.

Claim 8 (original): The active matrix liquid crystal display panel as set forth in claim 7, in which the resistivity of said color filter layers is greater than the resistivity of said

black matrix and less than the resistivity of said piece of material and the resistivity of said overcoat layer.

Claim 9 (original): The active matrix liquid crystal display panel as set forth in claim 8, in which said resistivity of said black matrix is fallen within a range between 10^3 ohm-cm to 10^6 ohm-cm, the resistivity of said color filter layers is fallen within a range between 10^8 ohm-cm to 10^{12} ohm-cm, the resistivity of said piece of material is equal to or greater than 10^{14} ohm-cm, and the resistivity of said overcoat layer is equal to or greater than 10^{14} ohm-cm.

Claim 10 (original): The active matrix liquid crystal display panel as set forth in claim 7, in which said piece of material has first portions in said gap between said black matrix and said color filter layers, second portions on the peripheral portions of said black matrix and third portions on the peripheral portions of said color filter layers.

Claim 11 (original): The active matrix liquid crystal display panel as set forth in claim 7, in which said piece of material has first portions in said gap between said black matrix and said color filter layers, second portions on the peripheral portions of said black matrix and third portions overlaid by peripheral portions of said color filter layers.

Claim 12 (original): The active matrix liquid crystal display panel as set forth in claim 7, in which exposed surfaces of said black matrix are covered with said piece of material.

Claim 13 (original): The active matrix liquid crystal display panel as set forth in claim 1, in which said second substrate structure further includes a non-transparent layer opposing the gap between said black matrix and said color filter layers so as to stop leakage light passing through said gap.

Claim 14 (original): The active matrix liquid crystal display panel as set forth in claim 13, in which said non-transparent layer is selected portions of a common electrode serving as selected ones of said electrodes together with pixel electrodes.

Claim 15 (original): A process for fabricating an active matrix liquid crystal display panel, comprising the steps of:

- a) preparing a first substrate structure including a black matrix defining openings, color filter layers respectively disposed in said openings and a piece of material inserted between said black matrix and said color filter layers and larger in resistivity than said black matrix and said color filter layers and a second substrate structure including electrodes for generating local electric fields;
- b) assembling said first substrate structure and said second substrate structure together so that a gap takes place therebetween;
- c) injecting liquid crystal into said gap; and
- d) completing said active matrix liquid crystal display panel.

Claim 16 (previously amended): The process as set forth in claim 15, in which said step a) includes the sub-steps of

- a-1) patterning a first material layer into said black matrix,
- a-2) patterning a second material layer into said color filter layers in such a manner that said black matrix is spaced from said color filter layers, and
- a-3) covering said black matrix and said color filter layers with an overcoat layer so that a part of said overcoat layer penetrates into the gap between said black matrix and said color filter layers for serving as said piece of material.

Claim 17 (previously amended): The process as set forth in claim 15, in which said step a) further includes the sub-step of a-4) forming moats in said part of said overcoat layer.

Claim 18 (previously amended): The process as set forth in claim 15, in which said step a) includes the sub-steps of

a-i) patterning a first material layer into said black matrix,

a-2) patterning a second material layer into said color filter layers in such a manner that said black matrix is spaced from said color filter layers,

a-3) patterning a third material layer into said piece of material filling the gap between said black matrix and said color filter layers, and

a-4) coating said black matrix, said color filter layers and said piece of material with an overcoat layer.

Claim 19 (previously amended): The process as set forth in claim 15, in which said step a) includes the sub-steps of

a-1) patterning a first material layer into said black matrix having openings,

a-2) forming said piece of material in such a manner as to partially on peripheral regions of said black matrix and partially in peripheral zones of said openings,

a-3) forming a second material layer into said color filter layers in such a manner as to have peripheral portions on the portions of said piece of material in said peripheral zones, and

a-4) covering said black matrix, said color filter layers and said piece of material with an overcoat layer.